Ordinance No. 8-92 ORDINANCE:

To repeal and re-enact with amendments Chapter 10 of the Rockville City Code entitled "Floodplain Management" so as to comply with federally mandated changes to the National Flood Insurance Program

WHEREAS, on December 12, 1977, the Mayor and Council adopted Ordinance No. 28-77 to regulate development within the floodplain. One purpose of the Ordinance was to satisfy the requirements of the National Flood Insurance Program so that property owners within the City would qualify for flood & insurance; and

WHEREAS, the provisions of Ordinance No. 28-77, as subsequently amended, are codified as Chapter 10 of the Rockville City Code; and

WHEREAS, the City has been advised by the Water Resources Administration of the Maryland Department of Natural Resources that certain amendments to the City ordinance are required for the ordinance to comply with federally mandated changes to the National Flood Insurance Program; and

WHEREAS, the Mayor and Council of Rockville desires to amend its Floodplain Management Ordinance so that it will continue to comply with the requirements of the National Flood Insurance Program.

NOW, THEREFORE, BE IT ORDAINED BY THE MAYOR AND COUNCIL OF ROCKVILLE, MARYLAND, that Chapter 10 of the Rockville City Code be, and hereby is, repealed and re-enacted with amendments to read as follows:

## CHAPTER 10

## FLOODPLAIN MANAGEMENT

## Article 1. In General

Section 10-1. Definitions.

For the purposes of this chapter, the following words and phrases shall have the meaning respectively ascribed to them by this section:

"Approximated floodplain" means those portions of land within the floodplain subject to inundation by the one hundred (100) year flood, where a detailed study has not been performed but where a one hundred (100) year floodplain boundary has been approximated. For those areas, elevation and floodway information from other federal, state, or other acceptable sources shall be used when available.

"Basement" means any <u>enclosed</u> area of a building having its floor subgrade (below ground level) on all sides.

"Board" means the Board of appeals created by chapter 25.

"Certificate of Occupancy" means a permit to legally occupy or use a building for the intended purpose.

"Department" means the Department of Public Works of the City.

"Development" means any manmade change to improved or unimproved real estate, including, but not limited to [the following:] construction, reconstruction, or expansion[, or substantial improvement] of buildings or other structures; dredging; placement of fill; dumping, storage of materials or

equipment, land excavation; land clearing; land improvement; paving; altering a stream course; drilling operations; or any combination thereof. Development includes subdivision of land.

"Director" means the Director of Public Works of the City or the director's authorized representative.

"Elevation certificate" means the official form as prepared and distributed by the Federal Emergency Management Agency using mean sea level as established by the National Geodetic Vertical Datum of 1929.

"Flood" means a general and temporary condition of partial or complete inundation of normally dry land areas from overflow of inland waters, or rapid unusual accumulation of runoff from any source.

"Flood Insurance Rate Map (FIRM)" means a map which depicts
the minimum special flood hazard area to be regulated by this
Ordinance (unless a Floodway Map is available).

"Flood Protection Elevation (FPE)" means the elevation of the one hundred (100) year flood plus one foot freeboard.

["Floodplain" means:

- (1) A relatively flat or low land area adjoining a river, stream or watercourse which is subject to partial or complete inundation; or
- (2) An area subject to the unusual and rapid accumulation or runoff of surface waters from any source.]

"Floodplain [district] " means [all areas subject to inundation] that land typically adjacent to a body of water with

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ground surface elevations that are inundated by the waters of the one hundred (100) year flood.

"Floodplain variance" means a relief from the prohibition against development in the floodplain district, in accordance with the provisions of this chapter.

"Floodproofing" means any combination of structural and nonstructural additions, changes or adjustments to properties and structures which reduce or eliminate flood damage to [lands, water and sanitary facilities, structures and contents of buildings] improved property.

"Floodproofing certificate" means the form supplied by FEMA to certify that a building has been designed and constructed to be structurally dry floodproofed to the Flood Protection Elevation.

"Floodway" means that portion of the floodplain required to carry and discharge the waters of the one hundred (100) year flood without increasing the water surface elevation at any point more than one (1) foot above existing conditions.

"Floodway fringe" means those portions of land within the floodplain subject to inundation by the one hundred (100) year flood, lying beyond the floodway in areas where detailed study data and profiles are made available.

"Floodway map" means a map which depicts floodways and special flood hazard areas to be regulated by this Ordinance.

"Freeboard" means an increment of elevation added to the base flood elevation to provide a factor of safety for

uncertainties in calculations, wave actions, subsidence, or other unpredictable effects.

"Lowest floor" means the lowest floor of the lowest enclosed area (including basement). An unfinished enclosure constructed of flood resistant materials used solely for parking of vehicles, storage, or building access in an area other than a basement is not the lowest floor. as long as it is supplied with water equalizing vents.

"Manufactured home or building" means a structure, transportable in one (1) or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. "Manufactured home or building" includes park trailers, travel trailers and other similar vehicles.

"New construction" means structures, and improvements and additions to structures, for which the start of construction commenced on or after the effective date of the ordinance from which this chapter is derived. ["New construction" does not include any work on a structure existing before the effective date of the ordinance from which this chapter is derived.]

"New development" means development which commences on or after the effective date of the ordinance from which this chapter is derived.

"NGVD" means National Geodetic Vertical Datum of 1929
elevation reference points set by the National Geodetic Survey
based on mean sea level.

"Nonconversion agreement" means written document executed by the applicant for a variance whereby the applicant agrees not to change or alter the use of the structure for which the variance is sought without the prior written consent of the Director. The agreement shall be recorded in the land records and bind all subsequent owners of the property.

"One hundred (100) year flood" means a flood that has one (1) chance in one hundred (100) or a one (1) percent chance of being equalled or exceeded in any given year. Also known as the base flood.

"Permanent construction" means any structure occupying a site for more than 180 days per year.

"Person" means any individual, corporation, partnership, joint venture, agency, unincorporated associations, municipal corporation, County or State agency or any combination thereof.

"Principally above ground" means at least fifty-one (51) percent of the actual cash value of a structure, less land value, is above ground.

"Public utility transmission facility" means those structures and development necessary for the transmission of gas, oil electricity, water and sewerage. Public utility transmission facility does not include any storage facility, generating plant or machinery, office buildings or any other structure not directly used for the transmission of the produce supplied by the utility.

"Recreational vehicle" means a vehicle built on a single chassis which is 400 square feet or less at the longest horizontal projection, self propelled or towable, and designed primarily for temporary living while traveling or camping.

"Registered land surveyor" means a land surveyor registered in this State.

"Registered professional engineer" means a professional engineer registered in this State.

"Start of construction" means the date of issue of the building permit for any development, including new construction and substantial improvements, provided that the actual start of the construction or improvement was within 180 days of permit issuance. The actual start of construction is the placement of slab or footings, piles, columns, or actual placement of a manufactured home. For substantial improvement, the start of construction is the first alteration of any structural part of the building.

"Structure" means a walled and roofed building, including a gas or liquid storage tank, garages, barns and sheds that is principally above ground. "Structure" includes a manufactured home or building.

["Substantial improvement" means any repair, reconstruction, expansion, extension or improvement of a structure, the cost of which equals or exceeds fifty (50) percent of the market value of the structure either:

(1) Before the improvement or repair is started; or

(2) If the structure has been damaged and is being restored, before the damage occurred.

For the purpose of this definition, "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure. "Substantial improvement" does not include any project for improvement of a structure to comply with existing state or local health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions.]

"Temporary structure" means any structure completely removed within 180 days from the issuance of the permit.

"Variance" means a floodplain variance.

"Wetland" means any land which is:

- (1) Considered private wetland or state wetland pursuant to title 9, Section 9-101 et seq. of the Natural Resources article of the Annotated Code of Maryland; or
- (2) [Classified as wetland by the U.S. Fish and Wildlife Service identification and classification procedures.]

  Defined as wetland under the procedures described in the "Federal Manual for Identifying and Delineating Jurisdictional Wetlands" by the Federal Interagency Committee for Wetland Delineation, 1989, as amended.

Section 10-2. Purpose.

- (a) Floodplains perform vital natural functions such as temporary storage of floodwaters, moderation of peak flood flows, maintenance of water quality, groundwater recharge, erosion prevention, and the provision of wildlife habitat, and recreational opportunities. These functions are best served if floodplains are kept in their natural state, and wherever possible, floodplains should be preserved.
- (b) The purpose of this chapter is to protect human life, health and safety, provide a comprehensive approach to floodplain management and preservation, and to minimize public and private property damage caused by flooding by establishing a floodplain [district] and prohibiting, with some exceptions, development therein, and by providing for variances from the restriction, and establishing standards and requirements for development that may be permitted in the floodplain [district].
- (c) In addition, this chapter is intended and designed to comply with the requirements of the National Flood Insurance Program, and various applicable State programs, although it in many respects imposes greater restrictions than those contained in such programs as has been determined necessary to protect and preserve the public health, safety and welfare.

Section 10-3. Interpretation.

(a) This chapter in many respects imposes greater restrictions than the minimum provisions of the National Flood

Insurance Program. In interpreting and applying this chapter, the requirements contained herein are declared to be the minimum requirements for the protection of health, safety nd welfare, and the provisions of this chapter shall be liberally construed so as to accomplish the purposes of this chapter.

(b) This chapter shall not be deemed to interfere with or abrogate or annul or otherwise affect in any manner whatsoever any ordinances, rules, regulations, permits or agreements between parties; provided, however, that where this chapter imposes stricter requirements with respect to development within the floodplain [district] than are imposed or required by other ordinances, rules, regulations, permits or agreements, the provisions of this chapter shall prevail.

Section 10-4. Municipal liability.

The grant of a variance or approval is not a representation, guarantee, or warranty of any kind and shall create no liability upon the City, its officials or employees.

Section 10-5. Administration and enforcement of chapter by Department of Public Works.

The Department of Public Works shall administer and enforce the provisions of this chapter and shall conduct any inspections deemed necessary to ensure compliance with any provision of this chapter or any condition imposed hereunder. The Department and the Director, and the Director's duly authorized representative, shall have such other powers and perform such other duties as are

set forth in other sections of this chapter and as may be conferred and imposed from time to time.

Section 10-6. Notification of violation, ineligibility for Flood Insurance.

The Federal Insurance Administrator and the Maryland Water Resources Administration shall be notified immediately in writing of any structure or property in violation of this chapter.

Structures in violation of this chapter [and] or applicable state [and] or federal laws and regulations are ineligible for national flood insurance.

Section 10-7. Violation of chapter declared misdemeanor; penalty for violation.

- (a) Any person violating any provision of this chapter or who fails to comply with any provision or requirement or condition imposed hereunder or at the direction of the Director, the City Engineer or any other authorized representative shall be guilty of a misdemeanor and upon conviction therefor shall be subject to a fine of not more than one thousand dollars (\$1,000.00) or imprisonment of not more than six (6) months or both for each violation.
- (b) Each day during which any violation of this chapter continues shall constitute a separate offense.
- (c) The imposition of a fine or penalty for any violation of or noncompliance with this chapter shall not excuse the violation or noncompliance or permit it to continue, and all such

persons shall be required to correct or remedy such violations and noncompliance within a reasonable time.

(d) Actions constituting violations of this chapter may also violate State law, and may be subject to separate enforcement action and may incur a separate penalty.

Section 10-8. Public nuisance.

Any structure constructed, reconstructed, enlarged, altered, or relocated in noncompliance with this chapter, shall be a public nuisance and abatable as such.

Section 10-9. Duties of Board of Appeals.

The Board of Appeals shall hear and decide all appeals from actions taken by the Director on requests for variances, as provided for in this chapter.

Section 10-10. Appeals from decisions of Director.

- (a) Any person aggrieved by any decision of the Director made pursuant to the provisions of this chapter may appeal the same to the Board of Appeals. Appeals shall be taken in the same manner as are appeals from decisions of other administrative officials.
- (b) Once an appeal is taken the Director shall promptly transmit to the Board all the materials constituting the record upon which the action appealed from is taken. The Board may hear and review any additional testimony or evidence it deems necessary.

Section 10-11. Appeals from decisions of Board of appeals.

Any person aggrieved by any decision of the Board pursuant to the provisions of this chapter may appeal the same to the Circuit Court of the County. Such appeal shall be taken according to the Maryland Rules as set forth in Chapter 1100, Subtitle B.

Article II. Floodplain [District] Regulations Section 10-21. [Established] Delineations of Flood plains.

[There is hereby established a floodplain district which shall include all areas subject to inundation by the waters of the one hundred (100) year flood.] The primary source [of this delineation] for delineating the floodplains regulated by this chapter shall be the Flood Insurance Study for the City of Rockville, Maryland, prepared by the Federal Emergency Management Agency (FEMA), and issued on July 5, 1977, and as may revised, amended or modified in compliance with the National Flood Insurance Program. [The floodplain district shall be deemed an overlay on any existing, and hereinafter established, zones or districts within the City.] However, areas along all nontidal streams, whether or not they have FEMA delineations as described above are subject to regulation by this chapter.

[Section 10-22. Subdistricts.

The floodplain district shall be comprised of the following subdistricts:

Floodway: That portion of the floodplain district required to carry and discharge the waters of the one hundred (100) year

flood without increasing the surface elevation at any point more than one (1) foot above existing conditions.

Floodway fringe: Those portions of land within the floodplain district subject to inundation by the one hundred (100) year flood, lying beyond the floodway in areas where detailed study data and profiles are made available.

Approximated floodplain: Those portions of land within the floodplain district subject to inundation by the one hundred (100) year flood, where a detailed study has not been performed but where a one hundred (100) year floodplain boundary has been approximated. For those areas, elevation and floodway information from other federal, state, or other acceptable sources shall be used when available.]

Section 10-[23] 22. Boundary disputes.

(a) When the boundary of a floodplain [district] is in dispute, or where the City Engineer is uncertain as to whether the proposed development lies within or without the [district] floodplain, the City Engineer may require that the person wishing to develop submit a site plan prepared and certified by a registered professional engineer showing appropriate elevations, including the one hundred (100) year flood elevation. In addition, it is desirable, especially for flood insurance purposes, that an amendment to the flood insurance rate map be obtained from the Federal Emergency Management Agency showing the subject property to be outside the floodplain [district]. In any case, where the Federal Emergency Management Agency issues a

flood insurance rate map amendment showing the site of the proposed development to be outside the [district] <u>floodplain</u>, the City Engineer shall determine that the subject site is outside of the floodplain [district].

- (b) The burden is on the person seeking to develop without a variance to show that the proposed development is not in the floodplain [district].
- (c) This section does not apply to those exceptions contained in section 10-[24] 23, subsection (b).

Section 10-[24] 23. Development restrictions; exceptions.

- (a) There shall be no new development within the floodplain [district] unless a floodplain variance is granted in accordance with the provisions of this chapter.
- (b) Subsection (a) does not apply to the following, providing that if any of the following take place in the floodway there be no resulting increase in the flood level:
- (1) Public utility transmission facilities, provided that all such facilities shall be located and constructed to eliminate or minimize flood damage;
- (2) Public facilities owned or operated by the City, provided that they be located and constructed to eliminate or minimize flood damage;
- (3) Any reconstruction [or substantial improvement] of any structure within the historic district or in the National Register of Historic Places or the state inventory of historic places, provided that to the extent compatible with the historic

and architectural value and significance of the structure, any reconstruction [or substantial improvement] shall be floodproofed;

- (4) Minor landscaping maintenance;
- (5) Two (2) wire fences;
- (6) Play or seating equipment that is not a structure.

Article III. Variances

Division 1. Generally

Section 10-36. Authorized; effect.

Any person wishing to develop within the floodplain [district] may apply to the Director for a floodplain variance from the prohibitions in section 10-[24] 23, subsections (a), (b) and (c). The obtaining of a floodplain variance shall not relieve any person wishing to develop from any other requirements of any local, State or Federal law, rule or regulation. Receipt of Federal or State permits does not exempt development from the provisions of this chapter.

Section 10-37. Application.

- (a) An application for a variance under this chapter shall be filed with the Department on a form supplied by the Department and shall be accompanied by any fees duly established by the Council.
- (b) The application shall contain the following information:

- (1) Name, [and] address, and phone number of the applicant. The applicant must be the owner or an authorized agent of the owner;
- (2) Name, [and] address, and phone number of owner of land on which development is proposed;
- (3) Name, [and] address, and phone number of contractor;
  - (4) Site location;
- (5) Site plan drawn to scale prepared and certified by a registered professional engineer, showing the one hundred (100) year flood elevation, the size, location and elevations of the proposed and existing buildings, setbacks, elevation contours in mean sea level, revegetation and prevention of erosion, structures, public and private utilities, facilities and drainage structures;
- (6) Summary description of proposed work and estimated cost;
- [(7) For a substantial improvement to an existing structure, an appraisal performed by a professional real estate appraiser of the market value of the existing structure (less land value) to which the substantial improvement is associated]
  - (7) Site characteristics and improvements;
- (8) Depending on the type of structure involved, the following:

- a. For structures proposed to be elevated above [one (1) foot above the one hundred (100) year flood] the Flood Protection [e]Elevation, the plans shall show:
- its relation to the lot where it is to be constructed;
- 2. The elevation of the proposed final grading and lowest floors (including basements), and the existing ground and one hundred (100) year flood elevation as certified by a registered professional engineer;
- 3. The methods used to protect utilities (including sewer, water, telephone, electric, gas, etc.), from flooding below the one hundred (100) year flood elevation at the building site;
- 4. The method of elevating the proposed structure, including details of proposed fills, pile structures, retaining walls, foundations, erosion protection measures, etc. The plans shall be prepared by a registered professional engineer.
- b. For structures proposed to be floodproofed one
  (1) foot below the one hundred (100) year flood elevation, the
  plans shall show:
- 1. Details of all floodproofing measures prepared by a registered professional engineer and showing the size of the proposed structure and its relation to the lot where it is to be constructed. This shall include a certification by a registered professional engineer that the [structure will be dry

floodproofed in accordance with the specifications of the U.S. Army Corps of Engineers to one (1) foot above the one hundred (100) year flood elevation] enclosures below the Flood Protection Elevation (FPE) will be constructed with water equalizing vents to meet the specifications of section 10-53.

- 2. The elevations of the proposed final grading, lowest floors (including basements) and floodproofing limits and the existing ground and one hundred (100) year flood elevation as certified by a registered professional engineer.
- (9) When the proposed development includes the relocation or alteration of a water course, the applicant shall attach evidence that all adjacent communities and the State Water Resources Administration have been notified of the proposed alteration or relocation by certified mail and that copies of these notifications have been forwarded to the Federal Emergency Management Agency, Flood Insurance Administration. In addition, the developer shall assure the City, in writing, that the flood-carrying capacity within the altered or relocated portion of the watercourse in question will be maintained, and adverse impacts to the aquatic resources will be minimized;
- (10) Satisfactory proof that all applicable State and Federal permits have been obtained or applied for.
- (11) All applicants shall agree in writing to provide an Elevation Certificate completed by a registered professional engineer or surveyor to certify the as-built lowest floor of a structure which must be elevated to or above the Flood Protection

Elevation (FPE). An Elevation Certificate must be submitted before a Certificate of Occupancy may be issued. Work undertaken prior to submission of the certification is at the applicant's risk. For enclosed area below the FPE, a Nonconversion Agreement may be required, in addition to an agreement to install water equalizing vents as specified in Section 10-53 of this Ordinance.

- [(11)] (12) Any additional information deemed necessary by the Director to evaluate the potential flood hazard that would result from granting the variance, including but not limited to an engineering study prepared by a registered professional engineer which fully evaluates the effects of the development within the floodplain, plans for tree maintenance, stormwater management, revegetation, establishment of vegetated buffers and final grading.
- application requirements of this section if the development activity is deemed to be of minor impact on the floodplain and is not interpreted to displace more than ten (10) cubic feet of flood water and will have minimal impact on neighboring properties.

Section 10-38. Issuance standards.

- (a) The Director shall grant an application for a variance only upon a determination that:
- (1) There is good and sufficient cause for the variance;

- (2) Failure to grant the variance would result in exceptional hardship to the applicant;
  - (3) No reasonable alternative exists;
- [(3)] (4) The granting of a variance will not result in increased flood heights, additional threats to public safety or extraordinary public expense, create nuisances, increase erosion, cause fraud or victimization of the public, or conflict with any law or ordinance;
- [(4)] (5) The variance is the minimum necessary, considering the flood hazard, to afford relief;
- (6) The development will withstand the 100 year flood without significant damage.
- (7) In considering a variance action, comments from the State Coordinating Office of the Water Resources

  Administration must be taken into account and maintained with the permit file.
- (b) Floodway. No variance shall be granted for development within a floodway where the development will result in the increase in the flood level thereof, provided that a variance for such development may be granted where the effect of such development on flood heights will be fully offset by accompanying stream modifications which have been approved by the Director, the State Water Resources Administration, and the U.S. Army Corps of Engineers. When a developer proposes to offset the effects of development in the floodway, an engineering study prepared by a registered professional engineer which fully evaluates the

effects of [development in the floodway, an engineering study prepared by a registered professional engineer which fully evaluates the effects of] such construction and which uses the one hundred (100) year floodplain as the basis of the analysis shall be submitted. In addition, no variance shall be granted in the floodway until a conditional letter of map revision from FEMA is submitted to the Director. At the time of requested variance, application to FEMA must be made and shall include approved hydrologic and hydraulic analyses.

- (c) No variance shall be granted for the placement of any manufactured homes or buildings within a floodway.
- (d) No variance shall be granted for development within the dam break flood wave downstream of an existing dam unless the dam meets the design standards for a high hazard dam.
- (e) All efforts shall be made to avoid development and preserve natural vegetation in the following flood setback areas:
- (1) One hundred (100) foot setback as measured from the edge of the banks of any watercourse delineated as having a floodplain on the Floodway Map or FIRM; and
- (2) Fifty (50) foot setback as measured from the top of the bank of any stream which has no designated floodplain.

  No variance shall be granted in the floodway which may result in any increase in water surface elevations or change to the floodway until a conditional letter of map revision is applied for from FEMA. Application to FEMA must include approved hydrologic and hydraulic analyses. No variance shall be granted

in the floodway until a conditional letter of map revision from FEMA is submitted to the Director.

Section 10-39. Expiration.

- (a) A decision granting a variance shall expire and become void if development does not begin within [one (1) year] 180 days. Two (2) extensions of six (6) months each may be granted by the Director upon a showing of good cause.
- (b) Work on the proposed construction and/or development shall progress steadily through project completion. If work ceases for a period of one hundred eighty (180) consecutive days or more, the variance shall expire, and work cannot resume without the issuance of a new variance. Work shall be completed within one year of the variance date, unless greater time is specified in the variance or a written extension is granted by the Director. Notwithstanding the foregoing, the director may order at any time the performance of work deemed necessary to eliminate or prevent a flood hazard, and to ensure the work is in compliance with the variance.

Section 10-40. Modifications.

No changes of any kind shall be made to the application for a variance, or any of the plans, specifications or the documents submitted with the application without the written consent or approval of the Director and subsequent modification of the variance.

Section 10-41. Records.

- (a) A record of all variance actions, including justifications for their issuance, shall be maintained by the Department and all such information shall be included in the biannual report submitted to the Flood Insurance Administrator, and shall be available upon request to the Federal Emergency Management Agency and for the Water Resources Administration.

  All documents needed to support any floodplain variance action, such as Elevation Certificates, map amendments or revisions, and variance actions, shall be available for review during these assessments.
- (b) A copy of the permit must be displayed at the construction site during construction activity.

Division 2. Development Requirements Section 10-51. Generally.

The materials and representations submitted with the application for a variance and approval by the Director shall constitute conditions of the variance. In addition, any or all of the restrictions and development requirements contained in this division or any variance thereof, as may be deemed necessary by the Director to effectuate the purposes of this chapter, may be imposed as conditions of any variance granted.

Section 10-52. Additional conditions.

The Director may impose any additional conditions on the granting of the variance deemed reasonably necessary to protect

the applicant and the community from flood hazard and to minimize the effects of flooding.

Section 10-53. Lowest floor elevations.

- [(a) Unless good cause is shown to the contrary, new construction and substantial improvements of residential structures must have the lowest floor (including basement) elevated to at least one (1) foot above the one hundred (100) year flood elevation.
- (b) Unless good cause is shown to the contrary, new construction and substantial improvements of nonresidential structures must:]

New construction and improvements of residential and nonresidential structures must have:

- (a) the lowest floor (including basement) elevated to the Flood Protection Elevation (FPE); or
- (b) all fully enclosed areas below the lowest floor located below the FPE must contain water equalizing vents which meet or exceed the following standards:
- [(1) Have the lowest floor (including basement) elevated to one (1) foot above the one hundred (100) year flood elevation; or
- (2) Together with attendant utility and facilities, be designed so that below one (1) foot above the one hundred (100) year flood elevation the structure is watertight, with walls substantially impermeable to the passage of water and with

structural components having the capability of resisting hydrostatic and hydrodynamic load effects of buoyancy;]

- (1) a minimum of two openings on different walls

  having a total net area of not less than one square inch for

  every square foot of enclosed area subject to flooding;
- (2) the bottom of all openings shall be no higher than one foot above grade; and
- (3) openings may be equipped with screens, louvers, valves, or other coverings or devices, provided that they permit the automatic entry and exit of floodwaters to equalize hydrostatic forces on the walls.
- used solely for parking of vehicles, access to the building or storage. If such areas are enclosed, a nonconversion agreement must be signed by the applicant. The nonconversion agreement must state that the use of the structure may not change from that allowed in the variance.
- (c) If a variance is granted allowing construction of any structure below the FPE [one (1) foot above the one hundred (100) year flood elevation], the Director shall notify the applicant in writing that there will be an increase in premium rates for flood insurance and that such construction below one (1) foot above the one hundred (100) year flood elevation increases risks to life and property.

Section 10-54. Placement of buildings and structures.

- (a) All buildings and structures shall be constructed by methods and practices that minimize [food] flood damage, and shall be placed on the lot so as to offer the minimum obstruction to the flow and height of the floodwater.
- (b) Recreational vehicles located within the floodplain may be exempted from the elevation and anchoring requirements provided they are:
- (1) located on the site less than 180 consecutive days per year;
  - (2) fully licensed and ready for highway use; and
  - (3) properly permitted.

A recreational vehicle is ready for highway use if it is on its wheels and jacking system, is attached to the site only by quick disconnect type utilities and securing devices, and has no permanently attached additions. If it cannot meet all of these criteria, the recreational vehicle must be considered a manufactured home and is subject to the elevation and construction standards of this ordinance.

Section 10-55. Landscape design.

- (a) Adequate ground cover shall be provided for the soil stabilization within the floodplain [district].
- (b) Design of land contours and choice of plant materials shall direct surface runoff away from structures and shall not increase surface runoff onto neighboring properties.

Section 10-56. Anchoring.

All buildings and structures shall be firmly anchored in accordance with accepted engineering practices to prevent flotation, collapse, and lateral movement, thus reducing the threat to life and property and decreasing the possibility of blockage of bridge openings and other restricted sections of the watercourse. Any new or substantially improved manufactured home shall be elevated on a permanent foundation. All air ducts, large pipes, and storage tanks located below the Flood Protection Elevation (FPE) shall be firmly anchored to resist flotation.

Section 10-57. Electrical systems.

All electric utilities to the building side of the meter,
both interior and exterior to the building, are regulated by this
chapter.

- (a) All electric water heaters, electric furnaces, outlets, heat pumps, air conditioners, generators, distribution systems, and other permanent electrical installations shall be permitted only at or above the Flood Protection Elevation (FPE) [one (1) foot above the elevation of the one hundred (100) year flood].
- (b) No electrical distribution panels shall be permitted at an elevation less than three (3) feet above the elevation of the one hundred (100) year flood.
- (c) Separate electrical circuits shall serve lower levels and shall be dropped from above.

Section 10-58. Plumbing.

Water heaters, furnaces, toilets, sinks, showers, pressure tanks, and other permanent mechanical installations shall be permitted only at or above the Flood Protection Elevation (FPE) [one (1) foot above the elevation of the one hundred (100) year flood].

Section 10-59. Storage.

No materials that are buoyant, flammable, explosive, hazardous to health, or in times of flooding could be injurious to human, animal or plant life shall be stored below the Flood Protection Elevation (FPE) [one (1) foot above the elevation of the one hundred (100) year flood].

Section 10-60. Fill.

- (a) Fill shall extend beyond a structure for a sufficient distance to provide acceptable access. For residential structures, fill shall extend laterally fifteen (15) feet beyond the building line from all points. For nonresidential structures, fill shall be placed to provide access acceptable for intended use. At-grade access, with fill extending laterally fifteen (15) feet beyond the building shall be provided to a minimum of twenty-five (25) percent of the perimeter of a nonresidential structure.
- (b) Fill shall consist of soil or rock materials only. Sanitary landfills, rubble fills, dumps and landfills shall not be permitted.

- (c) Fill material shall be compacted in accordance with a Standard Proctor Test method issued by the American Society For Testing and Materials (ASTM Standard D-698) to provide the necessary stability and resistance to erosion, scouring or settling. Compaction tests and results thereof shall be provided.
- (d) Fill slopes shall be no steeper than one (1) vertical to three (3) horizontal, unless substantial data justifying steeper slopes are submitted to and approved by the Director or the City Engineer.
- (e) Fill shall be used only to the extent to which it does not adversely affect adjacent properties and does not violate the State Water Resources Administration's minimum standards.

Section 10-61. Private utilities and facilities.

- (a) New or replacement water supply systems and/or sanitary sewage systems shall be designed and floodproofed to eliminate or minimize infiltration of floodwaters into the systems and discharges from the systems into floodwaters, and to avoid impairment during flooding to minimize flood damage. Cesspools and seepage pits are prohibited. All pipes connected to sewage systems shall be sealed to prevent leakage.
- (b) All gas, electrical and other facility and utility systems shall be located, constructed, and floodproofed to eliminate or minimize flood damage.

(c) all new storm drainage facilities within and leading to or from the floodplain [district] shall be adequately designed, floodproofed and installed to eliminate or minimize property damage resulting from the floodwaters of the one hundred (100) year flood.

Section 10-62. Environmental protection.

All development shall be undertaken in a manner which minimizes adverse impacts on aquatic and terrestrial habitats and their related flora and fauna.

Section 10-63. Access.

All access roads shall be at or above the elevation of the one hundred (100) year flood.

Section [10-63] 10-64. Completion of document submissions.

Upon completion of development and/or construction performed under a variance, the following documents shall be submitted to the Director:

- (1) As-built drawings certified by a registered professional engineer or a registered land surveyor.
- (2) An elevation certificate prepared by a registered land surveyor or professional engineer certifying the "as-built condition of the subject development." The datum used on elevation certificates shall be mean sea level as established by the [National Geodetic Vertical Datum of 1929] NGVD.
  - (3) A letter of Map Revision from FEMA.

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Section [10-64] 10-65. Building permit conditions.

The Division of Licenses and Inspection shall be provided with a copy of all variances. All development standards and other conditions imposed on the granting of a variance shall become conditions of any building permit issued with respect to any variance, and failure to comply with any standard or condition shall constitute cause for revocation of the building permit or for a stop-work order pursuant to applicable provisions of the City's building code.

Section [10-65] 10-66. Violation of conditions.

In addition to any other remedy set forth herein, failure to comply with the terms or conditions of any variance shall result in:

- (1) The revocation of that variance; and/or
- (2) The issuance of an order directing all work in the floodplain to stop; and/or
- (3) The issuance of an order directing the performance of work deemed necessary by the Director to eliminate or prevent a flood hazard.

Violation of any of the terms and conditions of a variance may result in the denial of National Flood Insurance coverage for any structure located on any property associated with a violation.

Note: [Brackets] indicate material deleted Underlining indicates material added \* \* \* \* \* \* \* \* \*

I certify that the foregoing is a true and correct copy of an ordinance adopted by the Mayor and Council at its meeting of June 8, 1992.

March Du

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